

Appendix XIV.4-P

Bulking/Drum Rinsing Station Process Description

APPENDIX XIV.4-P **BULKING/DRUM RINSING STATION** PROCESS DESCRIPTION

I. Description of Treatment Equipment

A bulking/drum rinsing station ~~will be~~ located in the Building 695 liquid waste processing (LWP) area. ~~This drum rinsing station will replace the bulking station~~Bulking/Drum Rinsing Station ~~which is currently part of the Area 514 Waste Water Treatment Tank Farm Unit auxiliary equipment. It is used for bulking waste, rinsing empty containers, and decontaminating equipment and serves as the entry point for addition of most liquid wastes into the Tank Farm.~~

1.1 Purpose

The bulking/drum rinsing station serves as the entry point for addition of most liquid wastes into the Tank Farm. Containers with liquid wastes are dumped into the bulking/drum rinsing station pan using drum dumpers. Liquid wastes are then pumped from the pan to the tank farm. The bulking/drum rinsing station is also used for drum rinsing and equipment decontamination.

~~The A container that last held an extremely or acutely hazardous waste may be declared empty if it is triple rinse with a solvent capable of removing the waste material. The rinsing station will also be used to rinse and triple rinse containers that held hazardous waste. Rinsing will be performed. Rinsing can be performed~~ by using two pressurized, hot water units or hoses connected to utility water lines.

The Bulking/Drum Rinsing Station will also be used as the catch basin when operators decontaminate waste handling equipment. Contaminated equipment will be placed inside the pan and then decontaminated using pressure washers, wet wipe or other approved decontamination methods. The Bulking/Drum Rinsing Station is the most appropriate place for decontamination activities because it collects all wash water and provides easy transfer capabilities. Also, the station itself provides contamination control by containing all decontamination residues. An example of the type of equipment to be decontaminated would be drum dollies with external contamination, flexible hoses, and portable pumps used in waste transfer processes.

1.2 Equipment Operations

~~The drum rinsing station consists of a 400-gal stainless steel reservoir and two high-pressure, wand-type sprayers. The rinsing solution is typically water that may be heated. There are two drum dumpers that hold the drums in a position such that the rinse water drains into the 400-gal pan.~~

~~The rinsate must be characterized according to the process outlined in the Waste Analysis Plan (WAP). The rinsate may be added to a storage or treatment tank that contains the original contents from the container or portable tank being rinsed. If the concentrations of regulated constituents are below sewerable limits, the rinsate may be discharged to the sanitary sewer. Otherwise, the rinsate~~

may be treated to meet discharge limitations and/or appropriately stored and sent off site for treatment at a permitted facility.

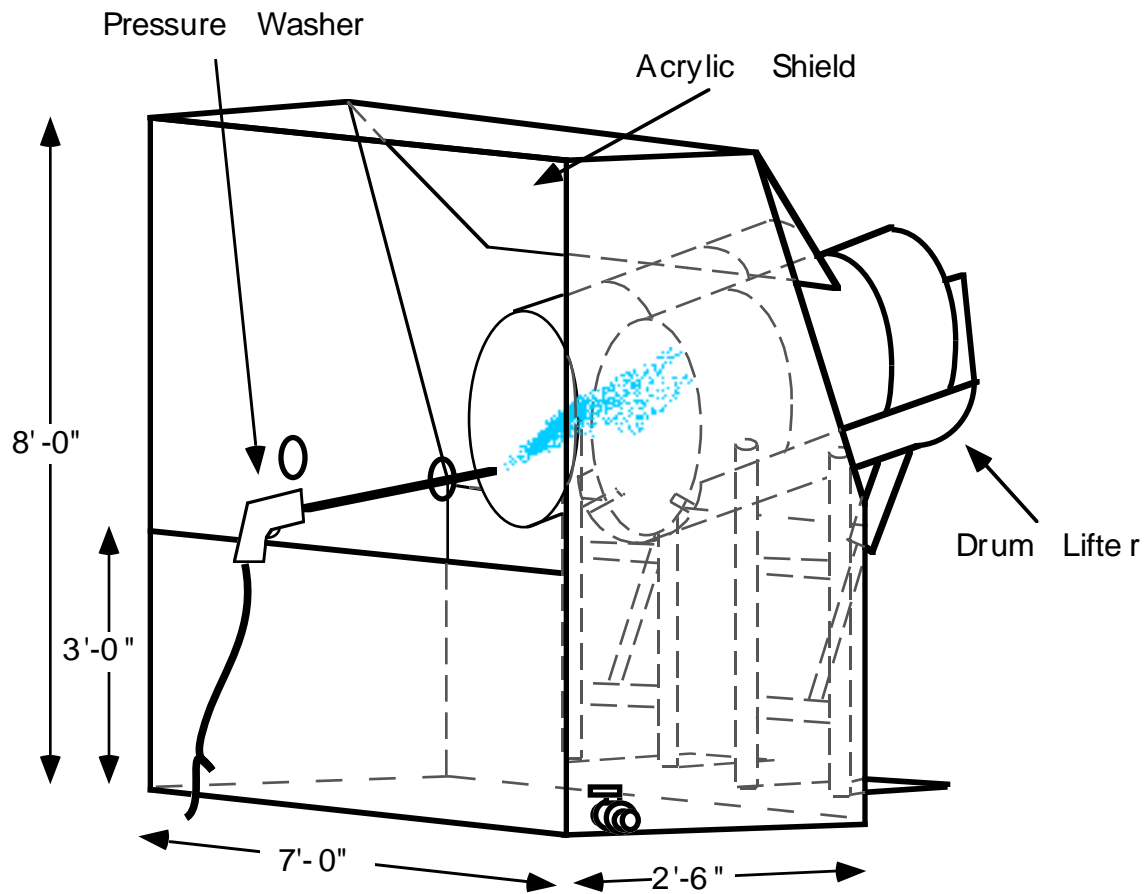
The Bulking/Drum Rinsing Station is an ancillary piece of equipment for the Tank Farm that is simply a stainless steel pan. The overall dimensions of the pan are approximately 10' long by 5' wide by 26" deep with a capacity of approximately 700 gallons. The bottom of the pan is sloped towards a 2" drain that is connected to a double-diaphragm air-powered pump. There also is a stainless steel screen just before the drain to prevent solids (e.g., broken glass, paper products) from entering the drain and clogging the line to the pump. This screen is connected to a long handle so that the screen can be removed, cleaned and replaced easily while the bulking process is taking place. The pan sits on a support structure constructed of mild steel box tube that is powder coated black. The support structure raises the pan approximately 19" so that the top of the pan is about 45" above the floor. The support structure has forklift pockets so that the station can be moved about easily.

The Bulking/Drum Rinsing Station is required because the tanks associated with the Tank Farm in DWTF are closed-top tanks and this is the most efficient method of introducing waste to the Tank Farm. The Bulking/Drum Rinsing Station will serve as the entry point for addition of most liquid wastes into the Tank Farm. Any type of waste stream that can be processed through the Tank Farm, except waste that requires Container Level II controls under the RCRA CC-Rule, may first pass through the Bulking/Drum Rinsing Station.

Waste containers of 85-gallons, 55-gallons, and 30-gallons will be dumped into the pan with the use of drum lifters (dumpers). Smaller containers ranging from 5-gallon carboys to 1-quart containers will be manually poured into the pan. The wastes, after being bulked into the pan, will then be pumped into the Tank Farm. The pump is connected via flexible hoses to any of the feed inputs on the hard-piped stainless steel waste transfer lines located in the Liquid Waste Processing Area (LWPA) (Room 1027) or the Air Lock (Room 1028). The waste transfer lines run along the west wall of B695. When the waste enters these waste transfer lines, the waste can be routed to any one of the nine tanks by opening and closing valves on that line. All connections from the drain to the pump and then from the pump to the waste transfer line are quick-disconnect couplings.

The Bulking/Drum Rinsing Station will not be used for storage of wastes and will be empty when not in use. Personnel will be present at all times during the bulking process.

The drum rinsing ~~and decontamination operations station~~ requires two hot-water pressure washers ~~in addition to the~~ and two drum lifters. The hot water can be supplied by an energy- efficient, commercial (120-gal), natural gas water heater. Each pressure washer requires 20 Amps at 230 V. Each drum lifter requires 20A at 115 V. The rate of water consumption by the pressure washers is 3 gal per minute; the delivery pressure of the water is between 1500 to 3000 psi.



The 400-gallon pan is 7-ft by 3-ft by 2.5-ft and has a sloped bottom to a 2-in. drain with valve and camlock fitting. The pressure washer is placed through an acrylic shield to prevent backsplash to workers. A lid with a piano hinge may come down over the drum to reduce or eliminate water spraying by the drums. The station is located in Building 695, Liquid Waste Processing Area.



Figure 1. Bulking/Drum Rinsing Station